

Abstract

The invention concerns a control device for adjusting the relative angular position of a driven shaft, particularly a camshaft of an internal combustion engine, said device comprising a drive pinion that is rotatably connected to the shaft, an adjusting element (1) for the angular adjustment of the drive pinion relative to the shaft, two chambers (2, 3) that are alternately supplied with hydraulic fluid and a control valve (6) for actuating the adjusting element (1), said control valve being connected to the chambers (2, 3) of the adjusting element (1) through pressure medium channels (4, 5). The control valve (6) comprises a valve body (7) that has two working connections A and B for the pressure medium channels (4, 5), a delivery connection P for the supply of hydraulic fluid and a discharge connection T for the discharge of hydraulic fluid, and the control valve (6) further comprises a sliding valve control piston (8) for setting different hydraulic resistances W between the individual connections. In an intermediate adjusted position of the valve control piston (8), for setting an intermediate phase angle, a lower hydraulic resistance W prevails between the delivery connection P and that one of the working connections A and B at which a design-related, higher fluid leakage V occurs.

Figure 2